Utilities under transformation

ELIA GROUP INTERNATIONAL
A strong, reliable and sustainable partner

Conference : Towards Massive Deployment of Low Cost, Renewable Electricity

Tokyo, March 7th 2018

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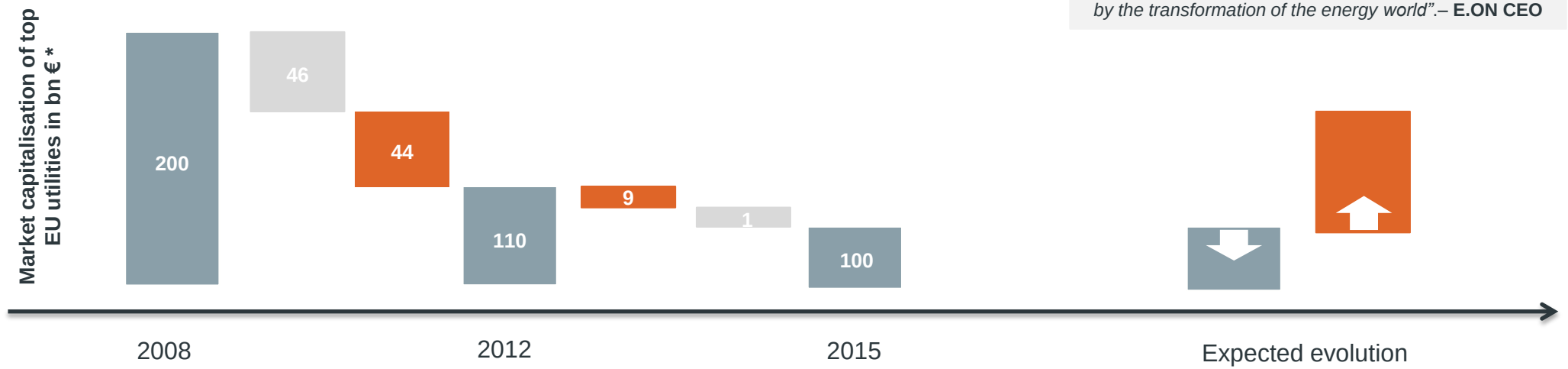
The energy sector is in a massive transformation, driven by regulation & technology

"Utilities have traditionally been protected from the effect of economic cycles by monopolies and high entry barriers, they have had little incentive to innovate" - Bloomberg

Ignoring the trends	Recognition but resistance	Acceptance	Transformation
"Solar is a hype"	*"Subsidies are to blame and there will be black-outs"*	*"We are in a deep crisis and we need to change"*	*"it's necessary to respond to dramatically altered global energy markets. We want to set up our business significantly different to tap the growth potential created by the transformation of the energy world".*– **E.ON CEO**



Anticipation and adaptation to be ahead of the curve is vital.
We need to make sure that TSOs are not the next on the list due to transforming trends

* (Source: Bloomberg for Enel, E.On, EDF, RWE, source McKinsey for new players). This evolution can be generalised to the entire EU utilities communities

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Elia Group FY 2017 performance

Investments	RAB*	Normalised[2] Net profit
€ 946 million[1]	€ 7.4 billion	€ 216.6 million
(19.6%) yoy	+6% yoy	+28.9% yoy
Dividend	**Normalised[2] RoE**	**Leverage ratio**
€1.62	8.2%	0.52x
45.6% payout	+150 bps yoy	debt/(debt+equity)

* Regulated Asset Base

[1] Includes 100% of the investments realized by 50Hertz

[2] The term “normalised” refers to performance measures before non-recurring items. Non-recurring items are either income or expenses which do not occur regularly as part of the normal activities of the company. Reported result at €229.1m.

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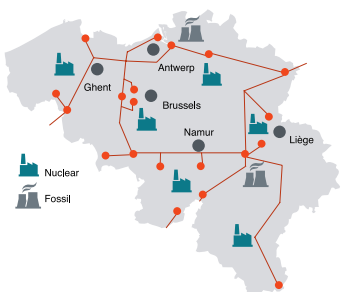
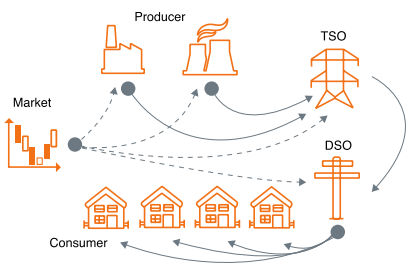
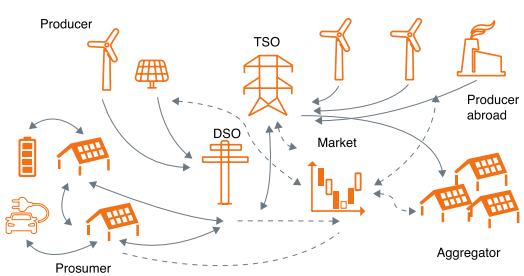
The energy transition is happening

Breakthrough of renewables on a European scale



New players and active consumers empowered by digitalisation





Integration of European electricity markets

Society's decarbonisation is driving the energy transition

COP 21

Europe's commitment = decarbonise the economy at least **80%** by 2050

Consequences for the energy sector

- Energy efficiency
- Electrify carbon-intense sectors
- Decarbonise the electricity system

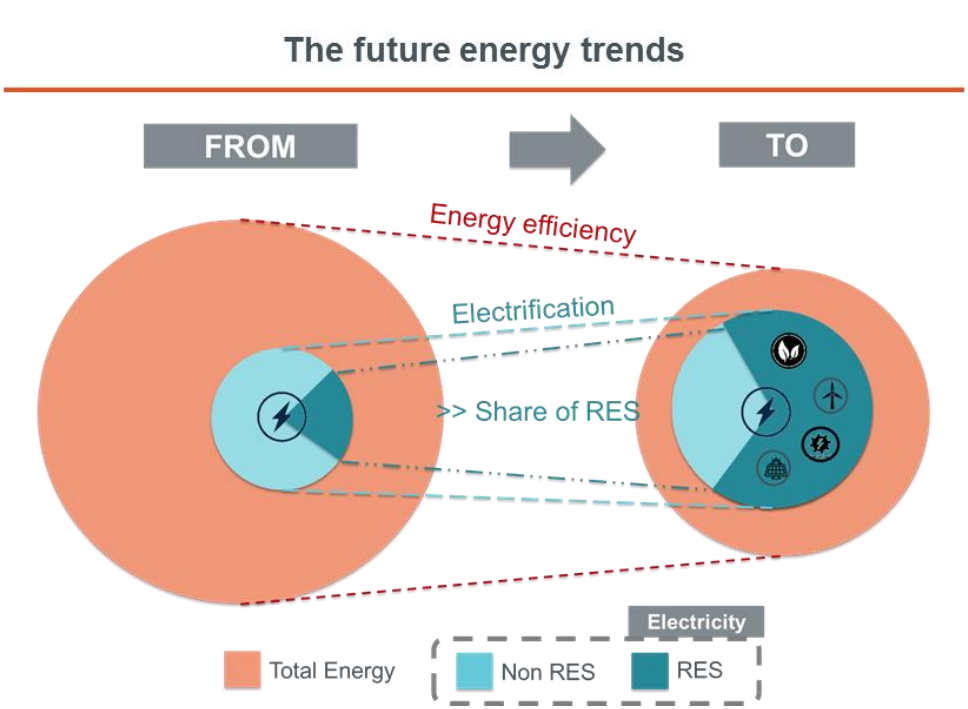
Expectations of the electricity system

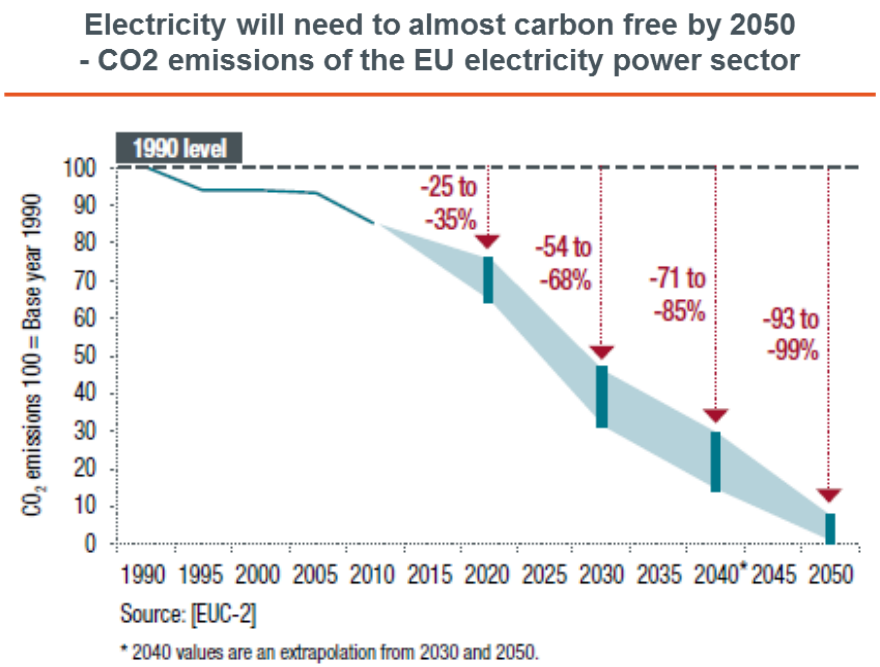
- Clean, affordable and reliable electricity
- Energy services fueling society's welfare

How to decarbonise the electricity system?

For reaching the 2050 targets for the total energy system, the electricity system will have to be almost carbon free (more than 90%) by 2050.

On top of energy efficiency, an increase of RES supported by the required grid infrastructure is key to achieve decarbonisation of the electricity system.





Challenges and solutions within system and markets

Current Situation

- Fast RES growth not synchronized with grid development
- Shift “central” into a highly “decentral” energy landscape

Resulting challenges

- Grid congestion
- Decentralization with distributed generation and active costumers
- RES intermittency
- Increasing energy costs for customers

TSO solutions

- Fast and efficient grid development
- Innovative congestion management concepts
- Market development
- Foster cooperation on all levels

The objective is to pursue the ‘Energy Trilemma’ (sustainable, affordable and reliable) at all times.

*Reaching the **COP21 objective in an affordable manner** will require:*

1. *Fostering energy efficiency*
2. *Pursuing electrification to decarbonise sectors (hard to decarbonise such as mobility and heating)*
3. ***Decarbonising the electricity system up to more than 90%***

***Decarbonisation the electricity system** will be based on:*

1. *Maximum reach out of **renewables***
2. *Robust **grid and interconnectors***
3. ***DSR, storage and digitalisation***
4. *And **thermal capacity** (in transition). **An appropriate (fit-for-purpose) market design** must make sure that this capacity will be present in due time.*

Thank you for your atttention

Q&A

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